AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the

application:

Listing of claims:

1-14. (Canceled)

15. (New) A transaction network for determining positioning of items within a supply chain that

is distributed over a plurality of geographic locations, comprising:

a customer maintenance system into which a work order is entered including information

that identifies a piece of equipment to be repaired and at least one item expected to be used

during a repair procedure;

a customer agent server in communication with the customer maintenance system which

extracts from the work order entered into the customer maintenance system the information that

identifies the at least one item expected to be used during the repair procedure and which uses

the information extracted from the work order entered into the customer maintenance system to

create an advance demand notice order for the at least one item; and

a distributor system in communication with the customer agent server which responds to

a receipt of the advance demand notice order that was created using the information extracted

from the work order to: a) determine if the advance demand notice order includes a probability

that the at least one item will need to be used during the repair procedure; b) estimate, using at

least forecast data associated with one or more of the piece of equipment and the at least one

item which forecast data is extracted from a database of forecast data accessible to the distributor

system, the probability that the at least one item will need to be used during the repair procedure

when it is determined that the advance demand notice order fails to include the probability that the at least one item will need to be used during the repair procedure; c) determine a cost associated with moving the at least one item within the supply chain; d) determine, based upon the probability that the at least one item will need to be used during the repair procedure, a customer specified level of service associated with the advance demand notice, and the cost associated with moving the at least one item within the supply chain, a plurality of fulfillment plans for the at least one item each of which includes a specification of a one of the plurality of geographic locations within the supply chain from which the at least one item is to be sourced and a one of the plurality of geographic locations within the supply chain at which the at least one item is to be positioned prior to commencement of the repair procedure; and e) select one of the plurality of fulfillments plans for implementation.

16. (New) The transaction network as recited in claim 15, wherein the forecast data comprises one or more of historical data indicative of prior consumption rates of the at least one item by a customer that is to repair the piece of equipment, deterministic demand data indicative of scheduled maintenance activity for the piece of equipment, and non-deterministic demand data indicative of scheduled maintenance activity for the piece of equipment compared to historical unscheduled maintenance activity for the piece of equipment.

17. (New) The transaction network as recited in claim 15, wherein the customer specified level of service comprises a customer desired one of the geographic locations within the supply chain at which the at least one item is to be positioned in response to the advance demand notice.

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18. (New) The transaction network as recited in claim 15, wherein the cost associated with moving the at least one item within the supply chain comprises one or more of an activity cost, a transportation cost, a holding cost, and an opportunity cost.

19. (New) The transaction network as recited in claim 15, further comprising a supplier system that cooperates with the distributor system by initiating a replenishment of the at least one item at the one of the plurality of geographic locations within the supply chain from which the at least one item is to be sourced in accordance with the selected fulfillment plan.

20. (New) The transaction network as recited in claim 15, wherein the customer maintenance system comprises a computerized maintenance management system.

21. (New) The transaction network as recited in claim 15, wherein the customer maintenance system comprises an enterprise asset management system.

22. (New) The transaction network as recited in claim 15, wherein the customer agent server comprises an intelligent agent that extracts the information from the customer maintenance system in response to a user entering or modifying a work order.

23. (New) The transaction network as recited in claim 15, further comprising a transportation agent system in communication with the distributor system that coordinates with the distributor system to assist in moving the at least one item between the one of the plurality of geographic locations within the supply chain from which the at least one item is to be sourced and the one of

the plurality of geographic locations within the supply chain at which the at least one item is to be positioned in accordance with the selected fulfillment plan.

24. (New) The transaction network as recited in claim 23, wherein the distributor system comprises an intelligent agent in communication with the transportation agent system that monitors movement of the at least one item within the supply chain.

25. (New) The transaction network as recited in claim 24, wherein the intelligent agent forms a corrective fulfillment plan if the intelligent agent determines that the at least one item is not being moved within the supply chain in accordance with the selected fulfillment plan.

26. (New) The transaction network as recited in claim 15, wherein the customer agent server extracts from the customer maintenance system forecast data for populating the database used in connection with estimating the probability that the at least one item will need to be used during the repair procedure.

27. (New) The transaction network as recited in claim 15, wherein the distributor system further uses one or more of a calculated distributor margin associated with fulfilling the advance demand notice and a customer pricing tolerance associated with fulfilling the advance demand notice when determining a plurality of fulfillment plans for the at least one item.